

REMARKS

Claims 1-12 and 14 are pending. Claim 1 is amended herein to recite a pair of second antiferromagnetic layers having outer end portions and internal end portions of different thicknesses and distances therebetween. This amendment finds support at least in Figures 1-4 and in paragraphs [0123], [0103], [0112], and [0113]. Claims 2-4 are amended also to eliminate redundancy and/or for consistency with amended claim 1. Claim 13 is canceled to eliminated redundancy with amended claim 1. No new matter has been added.

Objections

The Examiner objected to claim 1 due to an inadvertant typographical error. Accordingly, Applicants have amended the last line of the claim to read "first ferromagnetic layers" instead of "first ferromagnetic layer." Applicants therefore respectfully request that the Examiner withdraw this objection.

The Examiner objected to claims 9 and 10 as being dependent on a rejected base claim. Applicants believe that this objection is overcome in light of the aforementioned amendments to claim 1 and respectfully request that the Examiner withdraw this objection.

Rejections Under 35 U.S.C. § 112

The Examiner asserted that claim 3 is indefinite under 35 U.S.C. § 112, second paragraph, due to insufficient antecedent basis. Claim 3 is amended herein to overcome this rejection. Applicants respectfully request withdrawal of this rejection.

Rejections Under 35 U.S.C. § 102

The Examiner asserted that claims 1, 2, 4, 8, 13, and 14 are anticipated by Shimazawa et al. (U.S. patent application no. 2003/0218836 A1) under 35 U.S.C. §102(a) and/or §102(e). The Examiner further asserted that claims 1, 5, and 6 are anticipated by Gill (U.S. patent application no. 2003/0156362 A1) under 35 U.S.C. §102(a) and/or §102(e). Applicants respectfully traverse these rejections.

Claim 1 is amended herein to describe a pair of second antiferromagnetic layers that have outer end portions and internal end portions of different thicknesses and distances therebetween. In particular, amended claim 1 recites second antiferromagnetic layers having internal end portions of a smaller thickness than that of the outer end portions. Neither Shimazawa et al. nor Gill discloses second antiferromagnetic layers having internal end portions and outer end portions of different thicknesses. Since the references do not disclose each and every element of independent claim 1, they cannot anticipate the pending claims. Applicants therefore respectfully request that the Examiner withdraw the rejections of claims 1, 2, 4-6, 8, 13, and 14 under §102(a) and/or §102(e).

Rejections Under 35 U.S.C. § 103

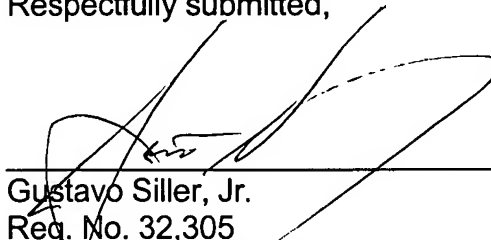
The Examiner asserted that claims 2, 3, 13, and 14 are obvious over Shimazawa et al. in view of Gill (U.S. 6,456, 469 B1). The Examiner further asserted that claims 7, 11, and 12 are obvious over Shimazawa et al. in view of Lin et al. (U.S. patent application no. 2004/0042130 A1). Applicants respectfully traverse these rejections.

As pointed out in the previous section, neither Shimazawa et al. nor Gill discloses second antiferromagnetic layers having internal end portions and outer end portions of different thicknesses, as required by independent claim 1 and dependent claims 2, 3, 7, 11-14. Lin et al. also does not disclose this claim limitation. Furthermore, the combination of these references, i.e., Shimazawa et al. in view of Gill or Shimazawa et al. in view of Lin et al., does not teach or suggest this claim limitation. Because the cited references, either alone or in combination, do not teach or suggest each and every element of claims 2, 3, 7, 11-14, a *prima facie* case of obviousness has not been established. Applicants therefore respectfully request that the Examiner withdraw the rejections of the claims under U.S.C. § 103(a).

SUMMARY

Applicants believe that currently pending claims 1-12 and 14 are in condition for allowance. The Examiner is invited to contact the undersigned agent for the Applicants via telephone if such communication would expedite allowance of this application.

Respectfully submitted,



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